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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER
MILORD, MARCEAU

ART UNIT	PAPER NUMBER
2618	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	**Application No.** 10/683,627	**Applicant(s)** KUREK ET AL.	
	Examiner Marceau Milord	**Art Unit** 2618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *16 October 2007*.
2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.
3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-23* is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5)☒ Claim(s) *12,13,20 and 21* is/are allowed.
6)☒ Claim(s) *1-4,9-11,14-16,22 and 23* is/are rejected.
7)☒ Claim(s) *5-8 and 17-19* is/are objected to.
8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.
10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a)☐ All b)☐ Some * c)☐ None of:
  1.☐ Certified copies of the priority documents have been received.
  2.☐ Certified copies of the priority documents have been received in Application No. _____.
  3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
 * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
 Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
 Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1-4, 9-11, 14-16, 22-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brower (US Patent No 6760303 B1) in view of Muller (US Patent No 6845238 B1).

Regarding claims 1-4, Brower discloses a communication circuit operative to update an active link set list in a wireless communication system (figs. 4-6) comprising: a link circuitry operative to receive an active link set message (col. 4, lines 36-54; col. 4, line 55- col. 5, line 14).

However, Brower does not specifically disclose steps of using reference link determination circuitry operative to receive an active link set update message and in response, to create a candidate list of reference links based on the active link set list and the received active link set update message; wherein the candidate reference link determination circuitry is operative to create the candidate list of reference links based on at least an indication in the received active link set update message to retain links from the active link set list.

On the other hand, Muller, from the same field of endeavor, discloses a telecommunications network that performs an inter-frequency hard handover for a connection with a user equipment unit by switching either from a cell or a current active set of base stations on a first frequency to a virtual active set of base stations on another frequency. The virtual active set of base stations is maintained at the user equipment unit, and is updated. Firstly, the network authorizes the user equipment unit to report to the network the occurrence of certain network-specified events which are acted upon by the network for communicating virtual active set update information to the user equipment unit (first mode). Secondly, the network authorizes the user equipment unit to perform an autonomous virtual active set update upon occurrence of certain network-specified events, with inter-frequency events being reported from the equipment unit to the network and the network issuing an inter-frequency handover command (second mode; col. 4, lines 19-62; col. 5, lines 1-27). Furthermore, the user equipment unit is tuned to an active set of base stations on a first frequency. The user equipment unit maintains a list of the cells included in the active set, which list is typically updated over time by the network as user equipment unit travels or as other conditions change. The user equipment unit provides measurements relative to both the active set and the virtual active set. The measurement control message instructs the user equipment unit to measure one or more radio-related parameters on the used frequency and on the non-used frequency. The measurement control message also identifies one or more predetermined events and/or conditions which trigger the transmission of a measurement report sent from the user equipment unit back to the radio network control node. In response to each virtual active set update message, the user equipment unit issues a virtual active set update complete message (fig. 4, figs. 5-6; col. 8, lines 28-67; col. 9, lines 36-67; col. 10, lines 25-59;

col.11, lines 18-66; col. 13, line 41-col. 14, line 55). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply the technique of Muller to the communication system of Brower in order to provide a network with a quality estimate for a current active link set as well as a quality estimate for the virtual active link set.

Regarding claims 9-11, Brower discloses a wireless device operative to update an active link set list in an asynchronous wireless communication system (figs. 4-6) comprising: a transceiver (56 of fig. 4) operative to receive an active link set message (col. 4, lines 36-54; col. 4, line 55- col. 5, line 14); a determination circuitry, operatively coupled to the transceiver (col. 9, line 49- col. 10, line 33).

However, Brower does not specifically disclose steps of using reference link determination circuitry operative to receive an active link set update message and in response, to create a candidate list of reference links based on the active link set list and the received active link set update message; and memory, operatively coupled to the candidate reference link determination circuitry, and operative to store the candidate list of reference links; wherein the candidate reference link determination circuitry is operative to create the candidate list of reference links based on at least an indication in the received active link set update message to retain links from the active link set list.

On the other hand, Muller, from the same field of endeavor, discloses a telecommunications network that performs an inter-frequency hard handover for a connection with a user equipment unit by switching either from a cell or a current active set of base stations on a first frequency to a virtual active set of base stations on another frequency. The virtual active set of base stations is maintained at the user equipment unit, and is updated. Firstly, the network authorizes the user equipment unit to report to the network the occurrence of certain network-specified events which are acted upon by the network for communicating virtual active set update information to the user equipment unit (first mode). Secondly, the network authorizes the user equipment unit to perform an autonomous virtual active set update upon occurrence of certain network-specified events, with inter-frequency events being reported from the equipment unit to the network and the network issuing an inter-frequency handover command (second mode; col. 4, lines 19-62; col. 5, lines 1-27). Furthermore, the user equipment unit is tuned to an active set of base stations on a first frequency. The user equipment unit maintains a list of the cells included in the active set, which list is typically updated over time by the network as user equipment unit travels or as other conditions change. The user equipment unit provides measurements relative to both the active set and the virtual active set. The measurement control message instructs the user equipment unit to measure one or more radio-related parameters on the used frequency and on the non-used frequency. The measurement control message also identifies one or more predetermined events and/or conditions which trigger the transmission of a measurement report sent from the user equipment unit back to the radio network control node. In response to each virtual active set update message, the user equipment unit issues a virtual active set update complete message (fig. 4, figs. 5-6; col. 8, lines 28-67; col. 9, lines 36-67; col. 10, lines 25-59; col.11, lines 18-66; col. 13, line 41-col. 14, line 55). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply the technique of Muller to the communication system of Brower in order to provide a network with a quality estimate for a current active link set as well as a quality estimate for the virtual active link set.

Regarding claims 14-16, Brower discloses a method for updating an active link set list in an asynchronous wireless communication system (figs. 4-6), the method comprising: receiving an active link set message (col. 4, lines 36-54; col. 4, line 55- col. 5, line 14).

However, Brower does not specifically disclose the steps of creating a candidate list of reference links based on the active link set update message and the active link set list; wherein creating the candidate list of reference links further includes creating a list of links to be retained from the active link set list.

On the other hand, Muller, from the same field of endeavor, discloses a telecommunications network that performs an inter-frequency hard handover for a connection with a user equipment unit by switching either from a cell or a current active set of base stations on a first frequency to a virtual active set of base stations on another frequency. The virtual active set of base stations is maintained at the user equipment unit, and is updated. Firstly, the network authorizes the user equipment unit to report to the network the occurrence of certain network-specified events which are acted upon by the network for communicating virtual active set update information to the user equipment unit (first mode). Secondly, the network authorizes the user equipment unit to perform an autonomous virtual active set update upon occurrence of certain network-specified events, with inter-frequency events being reported from the equipment unit to the network and the network issuing an inter-frequency handover command (second mode; col. 4, lines 19-62; col. 5, lines 1-27). Furthermore, the user equipment unit is tuned to an active set of base stations on a first frequency. The user equipment unit maintains a list of the cells included in the active set, which list is typically updated over time by the network as user equipment unit travels or as other conditions change. The user equipment unit provides measurements relative to both the active set and the virtual active set. The measurement control message instructs the user equipment unit to measure one or more radio-related parameters on the used frequency and on the non-used frequency. The measurement control message also identifies one or more predetermined events and/or conditions which trigger the transmission of a measurement report sent from the user equipment unit back to the radio network control node. In response to each virtual active set update message, the user equipment unit issues a virtual active set update complete message (fig. 4, figs. 5-6; col. 8, lines 28-67; col. 9, lines 36-67; col. 10, lines 25-59; col.11, lines 18-66; col. 13, line 41-col. 14, line 55). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply the technique of Muller to the communication system of Brower in order to provide a network with a quality estimate for a current active link set as well as a quality estimate for the virtual active link set.

Regarding claims 22-23, Brower discloses a memory (figs. 4-6) comprising instructions executable by one or more processing devices (52 of fig. 6) that cause the one or more processing devices (col. 9, lines 19-59) to: receive an active link set message (col. 4, lines 36-54; col. 4, line 55- col. 5, line 14).

However, Brower does not specifically disclose steps of creating a candidate list of reference links based on the active link set update message and the active link set list; and a list of links to be removed from the active link set list, and a list of links to be retained from the active link set list, in response to the received active link set update message.

On the other hand, Muller, from the same field of endeavor, discloses a telecommunications network that performs an inter-frequency hard handover for a connection with a user equipment unit by switching either from a cell or a current active set of base stations on a first frequency to a virtual active set of base stations on another frequency. The virtual active set of base stations is maintained at the user equipment unit, and is updated. Firstly, the network authorizes the user equipment unit to report to the network the occurrence of certain network-specified events which are acted upon by the network for communicating virtual active set update information to the user equipment unit (first mode). Secondly, the network authorizes the user equipment unit to perform an autonomous virtual active set update upon occurrence of certain network-specified events, with inter-frequency events being reported from the equipment unit to the network and the network issuing an inter-frequency handover command (second mode; col. 4, lines 19-62; col. 5, lines 1-27). Furthermore, the user equipment unit is tuned to an active set of base stations on a first frequency. The user equipment unit maintains a list of the cells included in the active set, which list is typically updated over time by the network as user equipment unit travels or as other conditions change. The user equipment unit provides measurements relative to both the active set and the virtual active set. The measurement control message instructs the user equipment unit to measure one or more radio-related parameters on the used frequency and on the non-used frequency. The measurement control message also identifies one or more predetermined events and/or conditions which trigger the transmission of a measurement report sent from the user equipment unit back to the radio network control node. In response to each virtual active set update message, the user equipment unit issues a virtual active set update complete message (fig. 4, figs. 5-6; col. 8, lines 28-67; col. 9, lines 36-67; col. 10, lines 25-59; col.11, lines 18-66; col. 13, line 41-col. 14, line 55). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply the technique of

Muller to the communication system of Brower in order to provide a network with a quality estimate for a current active link set as well as a quality estimate for the virtual active link set.

Allowable Subject Matter

3. Claims 5-8, 17-19 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Allowable Subject Matter

4. Claims 12-13, 20-21 are allowed.

Response to Arguments

5. Applicant's arguments with respect to claims 1-4, 9-11, 14-16, 22-23 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marceau Milord whose telephone number is 571-272-7853. The examiner can normally be reached on Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward F. Urban can be reached on 571-272-7899. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Marceau Milord

Primary Examiner

Art Unit 2618

MARCEAU MILORD

M.Milord

MARCEAU MILORD
PRIMARY EXAMINER

1-5-08